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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,087	08/02/2001	Edward Ho	790002-2001	6775

20999 7590 05/01/2003

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EXAMINER

NASRI, JAVAID H

ART UNIT PAPER NUMBER

2839

DATE MAILED: 05/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/921,087

Applicant(s)

HO, EDWARD

Examiner

Javaid Nasri

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7-12 and 17-61 is/are rejected.
- 7) ☒ Claim(s) 4, 6 and 13-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the

a) a connector detachably engaged to an attachment assembly, per claim 2.

b) a controller per claim 17, energy converter per claim 19, thermal photo voltaic cell per claim 22,

must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

It should be understood that these are few examples only. Applicant is requested to check all the claims and drawings and show all the limitations claimed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 21-26 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

- a) In the specification it is not explained how the energy converter being adapted to convert the directed light into a different form of energy per claim 21.
- b) the specification does not discuss thermal photovoltaic cell per claim 22.

It should be understood that these are few examples only. Applicant is requested to check all the claims and correct them appropriately.

Claim Objections

5. Claims 1-61 are objected to because of the following informalities:

Applicant is requested to provide numerals in the claims in order to understand the claims properly.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 5, 7, 12, 17-23 and 25-61 are rejected under 35 U.S.C. 102(b) as being anticipated by Daniel ('830).

Daniel discloses a lens (5, 7) including a surface having a spherical curvature and an optical transmission medium (8) placed at a center of the spherical curvature (see figure 1A), the lens directs at least a portion of the light into the optical transmission medium, a connector (9), the attachment assembly and the lens are integrated as a single unit, optical fiber (44), predetermined index of refraction, outer and inner layers, a controller (see col. 12, lines 48-63), the output includes a wavelength of the directed light, energy converter (see abstract), lighting apparatus, thermal photovoltaic cell (1), light absorbing medium, electricity generator (see abstract), energy storage element, a fixed focal point, the optical transmission medium overlaps the focal point, light collector, a convex surface, fresnel surface (11), light collector and lens are integrated as a single unit, a conical shape (6), frustrum of a cone (6), reflective surface, lighting fixtures (322, 348), natural light.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniel.

Daniel discloses all the limitations of claims 1 and 7 as shown above,

However, Daniel does not disclose:

- a) the predetermined index of refraction is approximately 1.49 and 1.39 and the material is acrylic and pyrex glass respectively. Official notice is taken that lens material acrylic with refractive index 1.49 and pyrex with refractive index 1.39 are well known in the art, therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention for the material of Daniel to be acrylic with refractive index 1.49 and pyrex with refractive index 1.39 for improved refractive index.

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daniel in view of Bauer.

Daniel discloses all the limitations of claims 1, 21 and 23 as shown above,

However, Daniel does not disclose:

- a) the light absorbing medium includes carbon particles. Bauer discloses carbon particles as being used as light absorbing medium, therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention for Daniel to have the light absorbing medium includes carbon particles in view of Bauer in order to have better light absorbing medium.

Allowable Subject Matter

11. Claims 4, 6 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

REASONS FOR ALLOWANCE

12. The following is an examiner's statement of reasons for allowance:

The reason for allowance of the claims is the inclusion of the limitation,

- a) for claim 4, a pivoting element for adjusting the optical transmission medium to the lens, in combination with other limitations in the claim which is not found in the prior art reference of record.
- b) for claim 6, the lens of the light collecting apparatus being a spherical lens, in combination with other limitations in the claim which is not found in the prior art reference of record.
- c) for claim 13, an interface between the outer layer and the inner layer includes a second spherical curvature, in combination with other limitations in the claim which is not found in the prior art reference of record.
- d) for claim 16, an index of refraction of the outer layer material is less than an index of refraction of the inner layer material, in combination with other limitations in the claim which is not found in the prior art reference of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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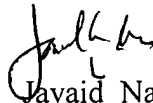
fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javaid Nasri whose telephone number is 703 308 5876. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 703 308 2710. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308 7722 for regular communications and 703 308 7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.


Javaid Nasri
Primary Examiner
Art Unit 2839

JN
jhn
April 29, 2003